

STUDIES IN AUSTRALIAN GRASSES : 1.

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Summary

New taxa are: *Cenchrus elymoides* F. Muell. var. *brevisetosus*, *Lolium* × *hubbardii* and *Sporobolus virginicus* (L.) Kunth var. *minor*. New combinations are *Ischaemum australe* R.Br. var. *arundinaceum* based on *I. arundinaceum* F. Muell. ex Benth., *Panicum effusum* R.Br. var. *simile* based on *P. simile* Domin, *Setaria gracilis* Kunth var. *pauciseta* based on *S. geniculata* (Lam.) P. Beauv. var. *pauciseta* Desv., *S. pumila* (Poir.) Roemer & Schultes subsp. *pallide-fusca* based on *Panicum pallide-fuscum* Schumacher and *Whiteochloa cymbiforme* based on *Panicum cymbiformis* Hughes. *Panicum chilligoense* Domin is a synonym of *P. seminudum* Domin var. *cairsianum* Domin.

Cenchrus elymoides F. Muell. var. ***brevisetosus*** B. K. Simon, varietas nova varietate typica setis brevioribus multis (circa $\frac{1}{3}$ longitudinem intimis involucri) et vix visibilibus, praeter unum setam longum, differt. **Typus:** Queensland—Cook District: Cape York, *Daemel* (MEL sub MEL 604905, holotypus, photo in BRI).

The two syntypes of *Cenchrus elymoides* F. Muell. represent two different taxa, one of which has an outer involucre of distinct bristles which are longer than or as long as the inner involucre and the other with the outer bristles about as one third the length of the inner involucre and hardly visible. In both entities there is one bristle which is much stouter and longer than the others and protrudes for some distance beyond the spikelet apex. The type description agrees more closely with the form with distinct bristles and for this reason I select Mueller's specimen as the lectotype of the type variety.

Cenchrus elymoides F. Muell. var. ***elymoides*** in Fragm. 8: 107 (1873). **Typus:** Western Australia—Mueller District: Sturts Creek, *Mueller* (MEL sub MEL 604906, lectotypus, photo in BRI).

Pennisetum elymoides (F. Muell.) Gardner, Fl. West. Aust. 1: 277 (1952).

I disagree with the placing of this species under *Pennisetum* by Gardner as the involucre bristles are fused to some degree at the base and the inner bristles are flat and collectively almost burr like. *Pennisetum* is generally distinguished from *Cenchrus* by having fine, thread-like bristles free to the base of the involucre.

Ischaemum australe R.Br. var. ***arundinaceum*** (F. Muell. ex Benth.) B. K. Simon, stat. et comb. nov.

Ischaemum arundinaceum F. Muell. ex Benth., Fl. Austral. 7: 519 (1878).

The only characters by which *Ischaemum arundinaceum* differ from *I. australe* are the glabrous nodes and slightly more robust spikelets. I consider these are hardly adequate to maintain the rank of species for the two taxa. *I. triticeum* R.Br. has a similar inflorescence to that of *I. australe* var. *arundinaceum* but the broader leaves and the decumbent habit warrant maintaining the rank of species for this entity.

Lolium* × *hubbardii Jansen & Wachter ex B. K. Simon, species nova, hybrida inter *L. multiflorum* Lam. et *L. rigidum* Gaudin, affinis *L. rigido* Gaudin sed lemmatum aristis longioribus quam 5 mm differt. **Typus:** Queensland—Cook District: Cairns, 29 Sep 1937, *Flecker* in N.Q.N.C. 3907 (BRI, holotypus; QRS, isotypus).

The name of this hybrid was invalidly published by Jansen & Wachter (Jansen, 1951) as there was no Latin description or diagnosis, required by the *International Code of Botanical Nomenclature* (1978) after 1 Jan 1935 (Article 32.1). Also as a nomenclatural type is required by the Code after 1 Jan 1958 (Article 37.1) an Australian specimen cited by Kloot (1983) is selected.

Panicum effusum R.Br. var. **simile** (Domin) B. K. Simon, stat. et comb. nov.

Panicum simile Domin, Bibl. Bot. 85: 322 (1915).

Panicum bicolor R.Br., Prodr. 191 (1810) non Moench. (1794).

Panicum fulgidum Hughes, Bull. Misc. Inform. 323 (1923).

Panicum bisulcatum S. T. Blake, Proc. Roy. Soc. Qld 59: 158 (1948).

The only character I know of by which *Panicum simile* Domin and *P. effusum* R.Br. differ from each other is the degree of hairiness of the nodes and culm base, hardly a good character by itself to be used for recognition of the entities at the rank of species.

Panicum seminudum Domin var. **cairnsonianum** Domin, Bibl. Bot. 85: 320 (1915).

Panicum chillagoensis Domin, Bibl. Bot. 85: 324 (1915), synonym. nov.

Examination of type specimens from PR of *Panicum seminudum*, *P. seminudum* var. *cairnsonianum* and *P. chillagoensis* revealed that the name of the second specimen was worth retaining for a hairy form of *P. seminudum* and that the third specimen was in fact the same entity.

Setaria gracilis Kunth var. **pauciseta** (Desv.) B. K. Simon, stat. et comb. nov.

Setaria geniculata P. Beauv. var. *pauciseta* Desv., Fl. Chil. 6:248 (1853).

A new name is required for the short awned form of the typical species, the correct name of which was established by Kerguelen (1977).

Setaria pumila (Poir.) Roemer & Schultes subsp. **pallide-fusca** (Schumach.) B. K. Simon, stat. & comb. nov.

Panicum pallide-fusum Schumach., Beskr. Guin. Pl. 58 (1827).

Setaria pallide-fusca (Schumach.) Stapf & Hubbard, Bull. Misc. Inform. 259 (1930).

Setaria glauca (L.) P. Beauv. var. *pallide-fusca* (Schumach.) Koyama, J. Jap. Bot. 37: 237 (1962).

Clayton (Clayton & Renvoize, 1982) placed *Setaria pallide-fusca* into synonymy with *S. pumila* on the basis of his previous work (Clayton, 1979), with a footnote that "there may be a case for distinguishing between tropical and Mediterranean populations at infraspecific level". His histogram of spikelet lengths of the Australian material of the *S. pumila* complex (Clayton, 1979) gives the impression that there is a continuous range in spikelet length over the range given separately for both the European population of *S. pumila* sens. strict. and the tropical African population of *S. pallide-fusca*. This is erroneous as both entities can be recognised as being distinct in Australia on the basis of spikelet length and consequently I have selected the subspecies rank to reflect their original geographical distribution.

Sporobolus virginicus Kunth var. **minor** Bailey ex B. K. Simon, varietas nova varietate typica laminis foliorum 1 mm latis vel minus quam differt. **Typus:** New South Wales—Central Coast: Cape Solander, Botany Bay, Mar 1961, *E. F. Constable* in NSW 55195 (BRI, holotypus; NSW, isotypus).

In my opinion the publication of the name of this variety (Bailey, 1896) is not valid. According to Article 32.1 of the *International Code of Botanical Nomenclature* (1978) the "name of a taxon must be accompanied by a description or a diagnosis of the taxon . . .". Bailey's treatment of the variety is extremely brief and only the phrases "a smaller form" and "often further from the coast" are used to distinguish it from the type variety. These can hardly qualify as an adequate description or even diagnosis; the essential differences of the new variety from the type variety is the very narrow leaf-blade, 1 mm or less, compared to a width of greater than 1 mm.

Whiteochloa cymbiformis (Hughes) B. K. Simon, comb. nov.

Panicum cymbiforme Hughes, Bull. Misc. Inform. 323 (1923).

Lazarides (1978) mentioned the fact that this species has "a number of features intermediate between *Panicum* and *Whiteochloa*, indicating a possible need for transfer to the latter". However, an examination of his table giving the diagnostic characters of these two genera shows it to agree with the characters given for *Whiteochloa* in all of the eight characters listed.

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